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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/796,048	03/10/2004	Hideki Kamada	249171US0	2720

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EXAMINER	
STEELE, JENNIFER A	

ART UNIT	PAPER NUMBER
1794	

NOTIFICATION DATE	DELIVERY MODE
05/14/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/796,048	KAMADA ET AL.	
	Examiner	Art Unit	
	JENNIFER STEELE	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 January 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,9-12,17-21,23 and 24* is/are pending in the application.

4a) Of the above claim(s) *5-8 and 13-16* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,9-12,17-21,23 and 24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claim 23 and 24 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant's specification and examples 1-3 do not describe a PVA fiber that is produced exclusively of PVA resin. Applicant describes in paragraph [0042] that "the PVA resin for use in the present invention is not specifically defined and it may be copolymerized with one or more compounds having one or more of the following groups: a carboxylic acid group, a sulfonic acid group, an ethylene group, a silane group, a silanol group and amino group and an ammonium group." Applicant does not describe a process or product wherein only a PVA resin is employed and does not exclude other embodiments that could include other resins or blends.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1-3, 10-11, 18-19 and 21 rejected under 35 U.S.C. 102(b) as being anticipated by Toray (JP 49100327A as published in Derwent 1975-34944W). The previous Office Action rejection of 11/29/2007 is maintained.

Claim Rejections - 35 USC § 102/103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claim 9 and 17 rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Toray. The previous Office Action rejection of 11/29/2007 is maintained.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claim 1-3, 9-11, 17-19 and 21 rejected under 35 U.S.C. 103(a) as being unpatentable over Toray (JP 49100327A as published in Derwent 1975-34944W) in view of Ohmory et al (US 5,972,501). The previous Office Action rejection of 11/29/2007 is maintained.

5. Claim 1 and 4, 9 and 12, 17 and 20 rejected under 35 U.S.C. 103(a) as being unpatentable over Toray (JP 49100327A as published in Derwent 1975-34944W) in view of Howard (US 5230949). The previous Office Action rejection of 11/29/2007 is maintained.

6. Claim 23 and 24 rejected under 35 U.S.C. 103(a) as being unpatentable over Toray (JP 49100327A as published in Derwent 1975-34944W) in view of Ueda et al (US 5,208,104). Toray teaches a flat fiber of the dimensions of the current application and teaches that the flat fibers comprise polyvinyl alcohol, polyacrylonitrile and acrylonitrile vinyl alcohol graft copolymers. Toray differs from the current application and does not teach a polymer produced from only PVA polymer. Ueda teaches a PVA fiber produced of a method of spinning with only PVA resin in a solvent where the PVA concentration in the spin solution is 12 to 30% (col. 6, lines 35-38). Ueda provides a teaching that PVA

fibers can be produced of only PVA polymer in a solvent based spinning solution and presents a finding that one of ordinary skill in the art could have produced a fiber of PVA with a reasonable expectation of success.

Response to Arguments

7. Applicant's amendments sufficient to overcome the previous Office Action 35 USC 112 1st paragraph rejection to claim 22 and the 35 USC 112 2nd paragraph rejection to claims 1-2, 10, 18, 21 and 22. The 35 USC 112 rejections of claims1-2, 10, 18, 21 and 22 have been withdrawn.

8. Applicant's arguments are not persuasive that Toray teaches blends of various polymers while Applicant's claims 1 and 21 claim only polyvinyl alcohol fiber. Applicant's specification indicates that other compounds are mixed with the polyvinyl alcohol resin spinning solutions as described in Example 1, 2 and 3 [0066]-[0071]. Example 1, 2 and 3 have a spinning solution that contains 15% by mass polyvinyl alcohol resin. Applicant also notes in paragraph [0042] that "the PVA resin for use in the present invention is not specifically defined and it may be copolymerized with one or more compounds having one or more of the following groups: a carboxylic acid group, a sulfonic acid group, an ethylene group, a silane group, a silanol group and amino group and an ammonium group." As claims 1 and 21 do not recite that limitation that the polyvinyl alcohol fibers "consists of polyvinyl alcohol", Applicant's arguments are not commensurate with the scope of the claims. As new claims 23 and 24 recite the limitation that the PVA fibers "consist of PVA", the Applicant's specification does not

provide support for this limitation, however new grounds of rejection that as Toray teaches a method of producing a flat fiber in the size range of Applicant's flat fiber, it would of been obvious to produce a fiber of only PVA resin and not a blend of resins as taught by Toray. Toray in view of Ueda presents a finding that one of ordinary skill in the art could have employed the technique of spinning a PVA solution through a rectangular orifice with a reasonable expectation of success in producing a flat fiber in that size range.

9. Applicant's arguments that Toray does not teach a PVA fiber with Applicant's flattened cross-sectional profile are not persuasive. Toray teaches a fiber that has a mean thickness between 0.4 and 5 micron because Toray teaches a fiber with a thickness of 3.4 micron. Toray teaches a fiber that is produced from an orifice having dimensions of 40 micron by 500 micron. Applicant's flat fiber is produced using an orifice size of 30 micron by 450 micron in example 1 and 30 micron by 600 micron in example 2 and 30 micron by 150 micron in example 3. As Toray's fiber width and thickness are in the range of Applicant's and Toray's orifice size is in the range of Applicant's, Toray anticipates the Applicant's PVA flat fiber.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JENNIFER STEELE whose telephone number is (571)272-7115. The examiner can normally be reached on Office Hours Mon-Fri 8AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. S./
Examiner, Art Unit 1794

/Elizabeth M. Cole/
Primary Examiner, Art Unit 1794

5/6/2008